



U.S. Department  
of Transportation  
**National Highway  
Traffic Safety  
Administration**

JUL 7 2010

1200 New Jersey Avenue SE.  
Washington, DC 20590

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Dr. Jan Urbahn  
General Manager  
Safety Engineering and Intelligent Transportation Systems  
BMW of North America, LLC  
P.O. Box 1227  
Westwood, NJ 07645-1227

NVS-212mjl  
PE10-020

Dear Dr. Urbahn:

This letter is to inform you that the Office of Defects Investigation (ODI) of the National Highway Traffic Safety Administration (NHTSA) has opened a Preliminary Evaluation (PE10-020) to investigate allegations of electric power steering (EPS) system failures in model year (MY) 2003 through 2005 BMW Z4 vehicles. As part of the investigation, this letter requests certain information from BMW of North America, LLC (BMW).

This office has received 107 Vehicle Owner's Questionnaire (VOQ) reports alleging loss of power assisted steering while driving on MY 2003 through 2005 BMW Z4 vehicles. The reports state that the steering wheel sticks, binds or locks up, and requires increased steering effort resulting in difficulty controlling the vehicle. One report alleged a crash and several reports alleged loss of vehicle control and near-miss incidents due to the steering failures. An electronic image of each VOQ report has been e-mailed to your office. A list of the reference number of each report is shown at the end of this letter.

Unless otherwise stated in the text, the following definitions apply to these information requests:

- **Subject vehicles:** All MY 2003 through 2005 BMW Z4 vehicles manufactured for sale or lease in the United States.
- **Subject system:** The electric power steering (EPS) system and all its components including the EPS torque sensor.
- **BMW:** BMW of North America, LLC, including its parent company where the design, engineering and/or manufacturing are undertaken in a foreign country, all of its past and present officers and employees, whether assigned to its principal offices or any of its field or other locations, including all of its divisions, subsidiaries (whether or not incorporated) and affiliated enterprises and all of their headquarters, regional, zone and other offices and their employees, and all agents, contractors, consultants, attorneys and law firms and



other persons engaged directly or indirectly (e.g., employee of a consultant) by or under the control of BMW (including all business units and persons previously referred to), who are or, in or after 2000, were involved in any way with any of the following related to the alleged defect in the subject vehicles:

- a. Design, engineering, analysis, modification or production (e.g. quality control);
  - b. Testing, assessment or evaluation;
  - c. Consideration, or recognition of potential or actual defects, reporting, record-keeping and information management, (e.g., complaints, field reports, warranty information, part sales), analysis, claims, or lawsuits; or
  - d. Communication to, from or intended for zone representatives, fleets, dealers, or other field locations, including but not limited to people who have the capacity to obtain information from dealers.
- **Alleged defect:** Loss of power assisted steering, difficulty in steering the vehicle, and/or allegations of steering wheel sticking, binding, locking up, not returning to center, etc.
  - **Document:** "Document(s)" is used in the broadest sense of the word and shall mean all original written, printed, typed, recorded, or graphic matter whatsoever, however produced or reproduced, of every kind, nature, and description, and all non-identical copies of both sides thereof, including, but not limited to, papers, letters, memoranda, correspondence, communications, electronic mail (e-mail) messages (existing in hard copy and/or in electronic storage), faxes, mailgrams, telegrams, cables, telex messages, notes, annotations, working papers, drafts, minutes, records, audio and video recordings, data, databases, other information bases, summaries, charts, tables, graphics, other visual displays, photographs, statements, interviews, opinions, reports, newspaper articles, studies, analyses, evaluations, interpretations, contracts, agreements, jottings, agendas, bulletins, notices, announcements, instructions, blueprints, drawings, as-builts, changes, manuals, publications, work schedules, journals, statistical data, desk, portable and computer calendars, appointment books, diaries, travel reports, lists, tabulations, computer printouts, data processing program libraries, data processing inputs and outputs, microfilms, microfiches, statements for services, resolutions, financial statements, governmental records, business records, personnel records, work orders, pleadings, discovery in any form, affidavits, motions, responses to discovery, all transcripts, administrative filings and all mechanical, magnetic, photographic and electronic records or recordings of any kind, including any storage media associated with computers, including, but not limited to, information on hard drives, floppy disks, backup tapes, and zip drives, electronic communications, including but not limited to, the Internet and shall include any drafts or revisions pertaining to any of the foregoing, all other things similar to any of the foregoing, however denominated by BMW, any other data compilations from which information can be obtained, translated if necessary, into a usable form and any other documents. For purposes of this request, any document which contains any note, comment, addition, deletion, insertion, annotation, or otherwise comprises a non-identical copy of another document shall be treated as a separate document subject to production. In all cases where original and any non-identical copies are not available, "document(s)" also means any identical copies of the original and all non-identical copies thereof. Any document, record, graph, chart, film or photograph originally produced in

color must be provided in color. Furnish all documents whether verified by BMW or not. If a document is not in the English language, provide both the original document and an English translation of the document.

- **Other Terms:** To the extent that they are used in these information requests, the terms “claim,” “consumer complaint,” “dealer field report,” “field report,” “fire,” “fleet,” “good will,” “make,” “model,” “model year,” “notice,” “property damage,” “property damage claim,” “rollover,” “type,” “warranty,” “warranty adjustment,” and “warranty claim,” whether used in singular or in plural form, have the same meaning as found in 49 CFR 579.4.

In order for my staff to evaluate the alleged defect, certain information is required. Pursuant to 49 U.S.C. § 30166, please provide numbered responses to the following information requests. Insofar as BMW has previously provided a document to ODI, BMW may produce it again or identify the document, the document submission to ODI in which it was included and the precise location in that submission where the document is located. When documents are produced, the documents shall be produced in an identified, organized manner that corresponds with the organization of this information request letter (including all individual requests and subparts). When documents are produced and the documents would not, standing alone, be self-explanatory, the production of documents shall be supplemented and accompanied by explanation.

Please repeat the applicable request verbatim above each response. After BMW’s response to each request, identify the source of the information and indicate the last date the information was gathered. On data retrievals (sales data, warranty data, etc.), the data shall be collected at the end of the monthly period (no partial month data) but no earlier than 15 days from the posted date of this letter.

1. State, by model and model year, the number of the subject vehicles BMW has manufactured for sale or lease in the United States. Separately, for each subject vehicle manufactured to date by BMW, state the following:
  - a. Vehicle identification number (VIN);
  - b. Make;
  - c. Model;
  - d. Model Year;
  - e. Date of manufacture;
  - f. Date warranty coverage commenced; and
  - g. The State in the United States where the vehicle was originally sold or leased (or delivered for sale or lease).

Provide the table in Microsoft Access 2000, or a compatible format, entitled “PRODUCTION DATA.”

2. State, by model and model year, the number of each of the following, received by BMW, or of which BMW is otherwise aware, which relate to, or may relate to, the alleged defect in the subject vehicles:

- a. Consumer complaints, including those from fleet operators;
- b. Field reports, including dealer field reports;
- c. Reports involving a crash, injury, or fatality, based on claims against the manufacturer involving a death or injury, notices received by the manufacturer alleging or proving that a death or injury was caused by a possible defect in a subject vehicle, property damage claims, consumer complaints, or field reports;
- d. Property damage claims;
- e. Third-party arbitration proceedings where BMW is or was a party to the arbitration; and
- f. Lawsuits, both pending and closed, in which BMW is or was a defendant or codefendant.

For subparts "a" through "f," state the total number of each item (e.g., consumer complaints, field reports, etc.) separately. Multiple incidents involving the same vehicle are to be counted separately. Multiple reports of the same incident are also to be counted separately (i.e., a consumer complaint and a field report involving the same incident in which a crash occurred are to be counted as a crash report, a field report and a consumer complaint).

In addition, for items "c" through "f," provide a summary description of the alleged problem and causal and contributing factors and BMW's assessment of the problem, with a summary of the significant underlying facts and evidence. For items "e" and "f," identify the parties to the action, as well as the caption, court, docket number, and date on which the complaint or other document initiating the action was filed.

3. Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 2, state the following information:
  - a. BMW's file number or other identifier used;
  - b. The category of the item, as identified in Request No. 2 (i.e., consumer complaint, field report, etc.);
  - c. Vehicle owner or fleet name (and fleet contact person), address, and telephone number;
  - d. Vehicle's VIN;
  - e. Vehicle's make, model and model year;
  - f. Vehicle's mileage at the time of incident;
  - g. Incident date;
  - h. Report or claim date;
  - i. Whether a crash is alleged;
  - j. Whether property damage is alleged;
  - k. Number of alleged injuries, if any; and
  - l. Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2000, or a compatible format, entitled "REQUEST NUMBER TWO DATA."

4. Produce copies of all documents related to each item within the scope of Request No. 2. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the method BMW used for organizing the documents.

5. State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by BMW to date that relate to, or may relate to, the alleged defect in the subject vehicles: warranty claims; extended warranty claims; claims for good will services that were provided; field, zone, or similar adjustments and reimbursements; and warranty claims or repairs made in accordance with a procedure specified in a technical service bulletin (TSB) or customer satisfaction campaign.

Separately, for each such claim, state the following information:

- a. BMW's claim number;
- b. Vehicle owner or fleet name (and fleet contact person) and telephone number;
- c. Vehicle's VIN;
- d. Repair date;
- e. Vehicle mileage at time of repair;
- f. Repairing dealer's or facility's name, telephone number, city and state or ZIP code;
- g. Labor operation number;
- h. Problem code;
- i. Fault codes, if any, indicated at the time of repair;
- j. Whether or not the claim is related to a TSB; if so, identify the relevant TSB;
- k. Replacement part number(s) and description(s);
- l. Concern stated by customer; and
- m. Comment, if any, by dealer/technician relating to claim and/or repair.

Provide this information in Microsoft Access 2000, or a compatible format, entitled "WARRANTY DATA."

6. Describe in detail the search criteria used by BMW to identify the claims identified in response to Request No. 5, including the labor operations, problem codes, part numbers and any other pertinent parameters used. Provide a list of all labor operations, labor operation descriptions, problem codes, and problem code descriptions applicable to the alleged defect in the subject vehicles. State, by model and model year, the terms of the new vehicle warranty coverage offered by BMW on the subject vehicles (i.e., the number of months and mileage for which coverage is provided and the vehicle systems that are covered). Describe any extended warranty coverage option(s) that BMW offered for the subject vehicles and state by option, model and model year, the number of vehicles that are covered under each such extended warranty.
7. Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject vehicles, that BMW has issued to any dealers, regional or zone offices, field offices, fleet purchasers, or other entities. This includes, but is not limited to, bulletins, advisories, informational documents, training documents, or other documents or communications, with the exception of standard shop manuals. Also include the latest draft copy of any communication that BMW is planning to issue within the next 120 days.
8. Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, "actions") that relate to, or may relate to, the alleged defect in the subject vehicles that have been conducted, are being

conducted, are planned, or are being planned by, or for, BMW. For each such action, provide the following information:

- a. Action title or identifier;
- b. The actual or planned start date;
- c. The actual or expected end date;
- d. Brief summary of the subject and objective of the action;
- e. Engineering group(s)/supplier(s) responsible for designing and for conducting the action; and
- f. Brief summary of the findings and/or conclusions resulting from the action.

For each action identified, provide copies of all documents related to the action, regardless of whether the documents are in interim, draft, or final form. Organize the documents chronologically by action. If an action is not complete, provide a detailed schedule for the work to be done, tentative findings and/or conclusions, and provide an update within 10 days of completion of the action.

9. Describe all modifications or changes made by, or on behalf of, BMW in the design, material composition, manufacture, quality control, supply, or installation of any component in the subject system, from the start of production to date, which relate to, or may relate to, the alleged defect in the subject vehicles and MY 2006 BMW Z4 vehicles. For each such modification or change, provide the following information:
  - a. The date or approximate date on which the modification or change was incorporated into vehicle production;
  - b. A detailed description of the modification or change;
  - c. The reason(s) for the modification or change;
  - d. The part numbers (service and engineering) of the original component;
  - e. The part number (service and engineering) of the modified component;
  - f. Whether the original unmodified component was withdrawn from production and/or sale, and if so, when;
  - g. When the modified component was made available as a service component; and
  - h. Whether the modified component can be interchanged with earlier production components.

Also, provide the above information for any modification or change that BMW is aware of which may be incorporated into vehicle production within the next 120 days.

10. Describe the design, operation, failure modes, and diagnostics of the EPS systems in the subject vehicles, including:
  - a. A list and description of each system component;
  - b. Drawings and diagrams of the system and its components;
  - c. Copies of all Failure Mode and Effects Analyses (FMEA) related to the subject system;
  - d. A list and description of all system diagnostic fault codes related to the subject system, including the effects of the faults on vehicle operation;

- e. Steering effort/force required during normal system operation and after a system failure (describe each failure mode/condition and include failures that are not associated with a system fault); and
  - f. Any similarities or differences in the EPS system design and operation between the subject vehicles and MY 2006-2008 BMW Z4 vehicles.
11. State the number of the subject systems and its components that BMW has sold that may be used in the subject vehicles by part number (both service and engineering/production) and month/year of sale (including the cut-off date for sales, if applicable). Include any kits that have been released, or developed, by BMW for use in service repairs to the subject system which relate, or may relate, to the alleged defect in the subject vehicles.

For each component/system part number, provide the supplier's name, address, and appropriate point of contact (name, title, and telephone number). Also, identify by model and model year, any other vehicles of which BMW is aware that contain the identical component/system, whether installed in production or in service, and state the applicable dates of production or service usage.

12. Furnish BMW's assessment of the alleged defect in the subject vehicles, including:
- a. The causal or contributory factor(s);
  - b. The failure mechanism(s);
  - c. The failure mode(s);
  - d. The risk to motor vehicle safety that it poses;
  - e. What warnings, if any, the operator would have that the alleged defect was occurring or subject system was malfunctioning; and
  - f. The reports included with this inquiry.

This letter is being sent to BMW pursuant to 49 U.S.C. § 30166, which authorizes NHTSA to conduct any investigation that may be necessary to enforce Chapter 301 of Title 49 and to request reports and the production of things. It constitutes a new request for information. BMW's failure to respond promptly and fully to this letter could subject BMW to civil penalties pursuant to 49 U.S.C. § 30165 or lead to an action for injunctive relief pursuant to 49 U.S.C. § 30163. (Other remedies and sanctions are available as well.) Section 5(a) of the TREAD Act, codified at 49 U.S.C. § 30165(b), provides for civil penalties of up to \$6,000 per day, with a maximum of \$16,375,000 for a related series of violations, for failing or refusing to perform an act required under 49 U.S.C. § 30166. See 49 CFR 578.6 (as amended by 71 Fed. Reg. 28279 (May 16, 2006)). This includes failing to respond to ODI information requests.

If BMW cannot respond to any specific request or subpart(s) thereof, please state the reason why it is unable to do so. If on the basis of attorney-client, attorney work product, or other privilege, BMW does not submit one or more requested documents or items of information in response to this information request, BMW must provide a privilege log identifying each document or item withheld, and stating the date, subject or title, the name and position of the person(s) from, and the person(s) to whom it was sent, and the name and position of any other recipient (to include all carbon copies or blind carbon copies), the nature of that information or material, and the basis for the claim of privilege and why that privilege applies.

BMW's response to this letter, in duplicate, together with a copy of any confidentiality request, must be submitted to this office by August 26, 2010. **All business confidential information must be submitted directly to the Office of Chief Counsel as described in the following paragraph and should not be sent to this office.** In addition do not submit any business confidential information in the body of the letter submitted to this office. Please refer to PE10-020 in BMW's response to this letter. If BMW finds that it is unable to provide all of the information requested within the time allotted, BMW must request an extension from me at (202) 366-0139 no later than five business days before the response due date. If BMW is unable to provide all of the information requested by the original deadline, it must submit a partial response by the original deadline with whatever information BMW then has available, even if an extension has been granted.

If BMW claims that any of the information or documents provided in response to this information request constitute confidential commercial material within the meaning of 5 U.S.C. § 552(b)(4), or are protected from disclosure pursuant to 18 U.S.C. § 1905, BMW must submit supporting information together with the materials that are the subject of the confidentiality request, in accordance with 49 CFR Part 512, as amended (69 Fed. Reg. 21409 et seq; April 21, 2004), to the Office of Chief Counsel (NCC-113), National Highway Traffic Safety Administration, 1200 New Jersey Avenue, S.E., Washington, D.C. 20590. BMW is required to **submit two copies of the documents containing allegedly confidential information (except only one copy of blueprints) and one copy of the documents from which information claimed to be confidential has been deleted.** Please remember that the word "CONFIDENTIAL" must appear at the top of each page containing information claimed to be confidential, and the information must be clearly identified in accordance with 5 U.S.C. § 512.6.

Please send email notification to Mr. Michael Lee ([Michael.Lee@dot.gov](mailto:Michael.Lee@dot.gov)) and to [ODI\\_IRresponse@dot.gov](mailto:ODI_IRresponse@dot.gov) when BMW sends it response to this office and indicate whether there is confidential information as part of BMW's response.

If you have any technical questions concerning this matter, please call Mr. Lee of my staff at (202) 366-5236.

Sincerely,

D. Scott Yon, Chief  
Vehicle Integrity Division  
Office of Defects Investigation

107 VOQ Reference Nos:

10078324	10078618	10078689	10078746	10078753	10078775	10118401	10118836
10126992	10127019	10127233	10127405	10129063	10129242	10131128	10134090
10135197	10140445	10141528	10143297	10143324	10148922	10154211	10158071
10158750	10163735	10201049	10204202	10223939	10225855	10226444	10226452



10228841	10235930	10236194	10237590	10237713	10237944	10241880	10242652
10242659	10244414	10245998	10250724	10260984	10265040	10268922	10269430
10269732	10270159	10272665	10273053	10276110	10276458	10277701	10278637
10279368	10279485	10279608	10280389	10280489	10280690	10280798	10281008
10281234	10281663	10282309	10283101	10283945	10285260	10287017	10288772
10294361	10294550	10294709	10295551	10295635	10295779	10297180	10298840
10299042	10299852	10307051	10310301	10312718	10313116	10313332	10318261
10318475	10318481	10320699	10321846	10323282	10323602	10324377	10325571
10327935	10328979	10329224	10329960	10332333	10332454	10334187	10334644
10336939	10339546	10340165					